

Innovative Clean Air Technologies (ICAT) Grant Program

Research Division
California Air Resources Board

September 2006

Function of ICAT

To promote:

- emission reductions
- ARB initiatives
- California economy

by co-funding field demonstrations of
new technologies & new applications

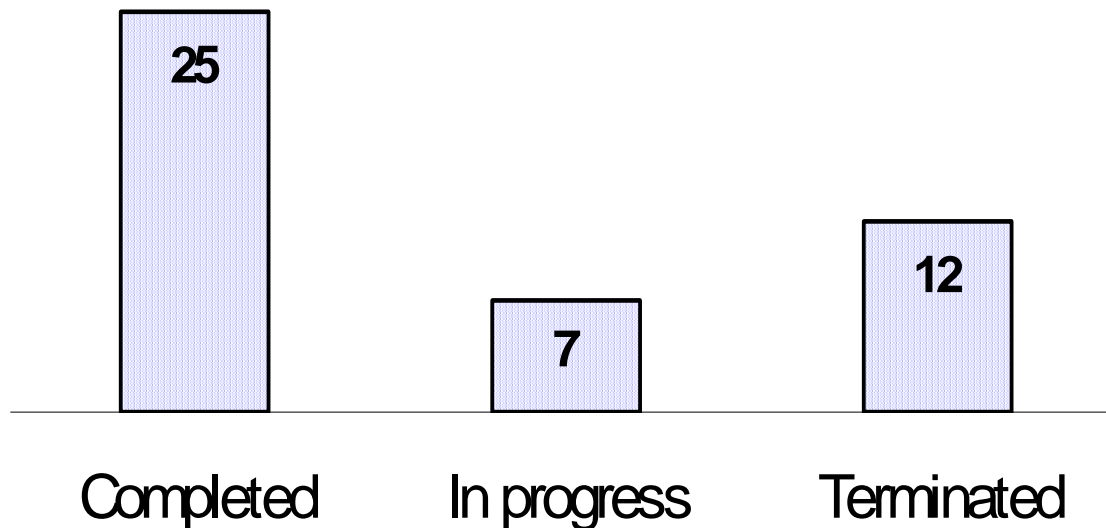
ICAT Rationale

- New technologies need practical demonstrations to attract buyers and capital for commercialization.
- Funding for demonstrations is sparse.
- So, public funds can be productive.

ARB allocates ~1 million per year

History

- 44 projects approved since '94 (11 vehicular)



- Average grant: \$203,000

Program Evaluation

- ICAT compares well to larger gov't technology support programs re:
 - commercialization rate
 - time to commercialization
 - criticality of the support
 - leveraging of other funding
- ICAT expenditures per ton of emission reductions < regulatory cost-effect. values.
(ICAT technologies save \$\$, too.)

Eligibility: Technology

1. Must be a technical innovation that provides *any* of these:
 - a new emission control* technology
 - an increase in control capability
 - a new application of a control
 - a cost reduction for a useful control
- (* “Control” includes prevention.)

Eligibility: Technology

2. Must be advanced in R&D but not yet commercial.
3. Must reduce criteria or toxic emissions in California. (An ICAT for GHG reductions could be developed.)
4. Must be marketable (e.g., cost-competitive).

Eligibility: Applicant

5. Must have means to support half of the proposed project cost (including cash to cover 10% of the budget).
6. Must have a plan to commercialize the technology.

Eligibility: Project

7. The proposed project must:
 - Culminate in a practical demonstration relevant to the potential market.
 - Have specific technical goals.
 - Consist of defined tasks.
8. The proposed ICAT grant cannot exceed half of the project's budget.

Selecting Grantees

- Annual solicitation of new project proposals
- We select the best proposals, considering:

Stage of development

Co-funders & partners

Potential AQ benefit

Applicant's credentials

Utility to ARB & aqmds

Economic benefit to CA

Commercial potential

Amount requested

Quality of project

Grantee's Responsibilities

- Kick-off meeting in California
- Regular communication with staff
 - Quarterly progress reports
 - Host site visits, if requested
- Final report (public document)
- Post-project seminar in California
- Updates on comm'l status (if requested)

Payments

- Only upon reaching pre-set milestones
- Per a budget organized by task & type of expense
- ARB can terminate a grant for non-performance.
- Cumulative ICAT \$\$ \leq 1/2 of project expenses at all times

ZEV-Related Grants

ISE Corp.	1996	<i>Hybrid-Electric Prototype Truck</i>
ETEC	1999	<i>Fast-Charged Electric GSE in Airports</i>
AC Propulsion	2001	<i>Plug-in HEV with Vehicle-to-Grid Power Flow</i>
SMUD	2001	<i>Elec. School Bus with ZEBRA Battery, Integrated Fast Charge</i>
ETEC	2005 (ongoing)	<i>Minimize Infrastructure Cost for GSE Charging</i>

To Learn More

www.arb.ca.gov/research/icat/icat.htm

- Instructions for application
- Program criteria
- Contacts
- Mailing lists
- List of grants, with project descriptions & final reports